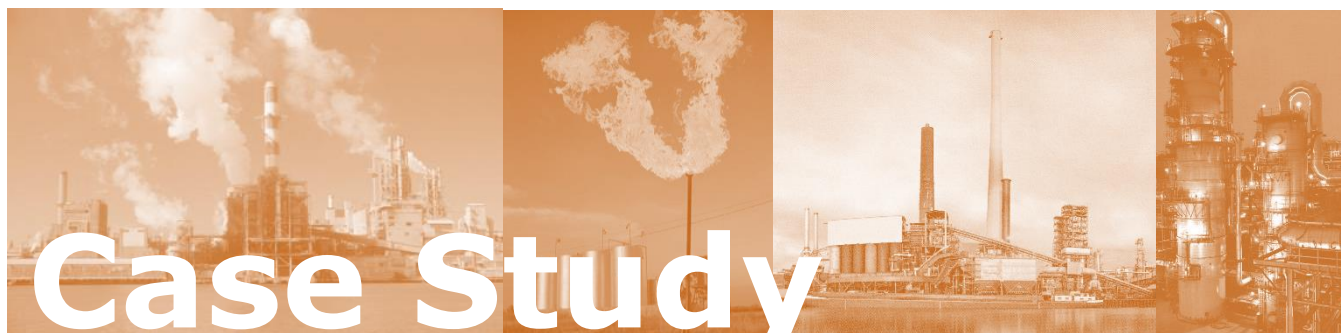




Natural Gas Monitoring Applications

Analysis of H₂S, Mercaptans and/or THT in natural gas with energyMEDOR

Context & Challenges

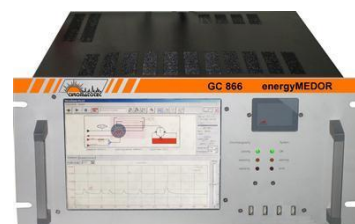
How to analyze H₂S, mercaptans and/or THT for detecting the odor of the gas with the ability to have total organic sulfur calculation in a metering station?

Chromatotec® Solutions

Instrument: energyMedor

energyMedor is able to analyze H₂S, mercaptans and/ or THT in addition to the calibration stream (permeation tube installed into the instrument) at very low levels (ppb- ppm).

The energyMedor can detect Total Sulfur Compounds thanks to a sulfur specific detector. Please find below 2 examples of the analyzed Sulfur Compounds:



Example 1

1. Hydrogen Sulfide
2. Methyl Mercaptan
3. Ethyl Mercaptan
4. N Propyl Mercaptan
5. Iso Propyl Mercaptan
6. Tertiary Butyl Mercaptan
7. **TOS (2+3+4+5+6)**

Example 2

1. H₂S
2. Methyl Mercaptan
3. Ethyl Mercaptan
4. N Propyl Mercaptan
5. Iso Propyl Mercaptan
6. Tertiary Butyl Mercaptan
7. **THT**
8. **Mercaptans (2+3+4+5+6)**

We can transfer each compound or the sum of all the compounds.

Very easy use:

- No auxiliary gas is needed
 - Consumption of only N2 or air (air instrument is possible)
- No Flammable gases are required by the analyzer.
- No need of special pre instrument filters or conditioners or traps. Standard pressurized gas at one bar or **15 PSI is required.**
- **energyMedor can be installed in an Ex Cabinet**

Data acquisition:

Thanks to an internal or external PC (required for safety areas), it is possible to collect data with the software Vistachrom. It allows transferring Concentrations, TOS calculations and status (calibrations, streams, default analyzer) by the Modbus protocol to the control room.

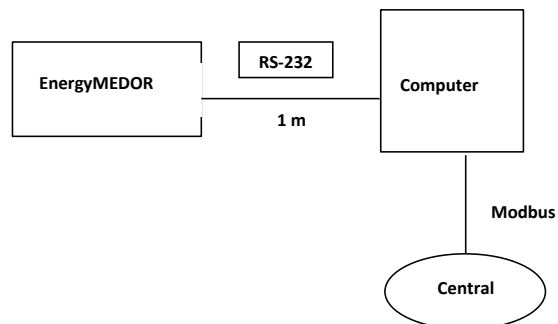
Calculation Module:

This module has the capacity of performing daily average (24hours) of selected components. This information can be provided to the Modbus driver as well as the component analysis.

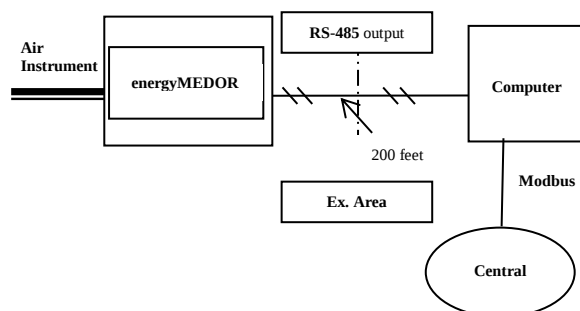
Conclusion:

- Speciation with chromatography technique.
- Unique sulfur specific detector technology recognized in natural gas industry which responds directly to H2S, mercaptans and THT.
- Linearity for each sulfur component.
- Robust and compact instrument, minimum maintenance needed.
- Compliant with ASTM D7493-08 guidelines and can be designed for Class 1 div 2 group B, C&D hazardous areas.
- State of the art PC and software solutions (Modbus, calculation modules, Windows embedded based software).
- Embedded calibration device with DMS permeation tube for automatic data validation.
- ppb or ppm analyzer version available.

Usual Use



Safety Room



California US



South Korea



New Jersey US